

## Comparison of Bacterial Communities Associated Spider Species Occupying Different Physical Environments

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The purpose of this research study is to test for a potential correlation between bacteria abundance in association with spiders and the climate of spiders' natural habitat. Two species of the grass spider genus, *Agelenopsis* were tested. Specifically, *Agelenopsis lisa* is found in the hot/dry climate of southwestern Texas while *A. oregonensis* inhabits forest edges in the cool/moist coastal region of Washington. Swab samples for bacteria of the containers housing the test spiders were transferred to agar petri dishes. The wetter environment experienced by *A. oregonensis* was simulated by misting the agar petri dish with water. The two sets of petri dishes were maintained in an incubator at 28 degrees C for *A. lisa* and 15 degrees C for *A. oregonensis*. Ultimately, our results revealed that the *A. oregonensis* spiders from a cool and moist environment had a larger associated bacterial community than the *A. lisa* spiders from the hot/dry habitat.